

LISTING OF CLAIMS:

- 1. (Currently Amended)** An endoscopic imaging system comprising:

an endoscope having an elongated insertion unit, the elongated insertion unit having an illumination optical system for illuminating an object and an objective optical system for ~~illuminating an object and an objective optical system for~~ introducing an optical image of the illuminated object;

an imaging apparatus having an imaging device for picking up the optical image and outputting a signal;

a video processing unit to which ~~so that it can be disconnected freely~~ [[said]] the imaging apparatus is ~~removably~~ detachably connected and which processes the signal to produce a standard video signal;

a display for displaying images of [[said]] the object according to the standard video signal;

a timing signal generation circuit, incorporated in [[said]] the imaging apparatus, for generating timing signals used to drive [[said]] the imaging device; and

a phase adjustment circuit for permitting an operator to manually adjust the phases of the timing signals so as to compensate for a signal delay occurring over a signal transmission line to said imaging device which is linked and over which a signal is transmitted.
- 2. (Currently Amended)** An endoscopic imaging system according to claim 1, wherein [[said]] the phase adjustment circuit permits an operator to manually adjust the phases of the timing signals so that an output signal of [[said]] the imaging device to be input to [[said]] the video processing unit will be in phase with a predetermined timing signal produced in [[said]] the video processing unit.
- 3. (Currently Amended)** An endoscopic imaging system according to claim 1, wherein [[said]] the video processing unit has a sync signal generation circuit for outputting sync signals to [[said]] the timing signal generation circuit.

4. (Currently Amended) An endoscopic imaging system according to claim 1, wherein [[said]] the imaging apparatus has a sampling circuit for sampling an output signal of [[said]] the imaging device according to timing signals generated by [[said]] the timing signal generation circuit.

5. (Currently Amended) An endoscopic imaging system according to claim 1, wherein [[said]] the imaging apparatus has an analog-to-digital conversion circuit for digitizing an analog output signal of [[said]] the imaging apparatus according to a timing signal generated by [[said]] the timing signal generation circuit.

6. (Currently Amended) An endoscopic imaging system according to claim 1, wherein [[said]] the video processing unit has an analog-to-digital conversion circuit for digitizing an analog output signal of [[said]] the imaging device according to a timing signal generated by [[said]] the timing signal generation circuit.

7. (Currently Amended) An endoscopic imaging system according to claim 1, wherein [[said]] the imaging apparatus has checking terminals used to check phase differences between the timing signals generated by [[said]] the timing signal generation circuit and an output signal of [[said]] the imaging device having passed through [[said]] the signal transmission line.

8. (Currently Amended) An endoscopic imaging system according to claim 1, wherein [[said]] the video processing unit has checking terminals used to check phase differences between the timing signals generated by [[said]] the timing signal generation circuit and an output signal of [[said]] the imaging device having passed through [[said]] the signal transmission line.

9. (Currently Amended) An endoscopic imaging system according to claim 1, wherein [[said]] the phase adjustment circuit permits an operator to manually adjust the phases of the timing signals according to a regulated resistance to be produced by a variable resistor.

10. (Currently Amended) An endoscopic imaging system according to claim 1, wherein [[said]] the phase adjustment circuit permits an operator to manually adjust the phases of the timing signals according to a regulated output voltage of an electronic voltage regulator.

11. (Currently Amended) An endoscopic imaging system according to claim 10, wherein [[said]] the video processing unit has an electronic voltage regulator voltage setter for setting an output voltage of [[said]] the electronic voltage regulator.

12. (Previously Presented) An endoscopic imaging system according to claim 1, wherein [[said]] the phase adjustment circuit permits an operator to manually select one of a plurality of delay elements connected in tandem so as to adjust the phases of the timing signals.

13. (Currently Amended) An endoscopic imaging system according to claim 1, wherein [[said]] the phase adjustment circuit permits an operator to manually employ a delay device for producing a delay, of which magnitude is varied depending on an applied voltage, so as to adjust the phases of the timing signals.

14. (Currently Amended) An endoscopic imaging system according to claim 1, wherein [[said]] the endoscope is an optical endoscope having a propagation optical system for propagating the optical image, and [[said]] the imaging apparatus is a TV camera mounted on [[said]] the optical endoscope and having [[said]] the imaging device, which picks up the optical image propagated by [[said]] the propagation optical system, incorporated therein.

15. (Currently Amended) An endoscopic imaging system according to claim 1, wherein [[said]] the endoscope is an electronic endoscope having [[said]] the imaging device located at the position of the image plane of [[said]] the objective optical system, and [[said]] the electronic endoscope has [[said]] the imaging apparatus incorporated therein.

16. (Currently Amended) An endoscopic imaging system according to claim 1, wherein ~~[[said]]~~ the phase adjustment circuit permits an operator to manually adjust the phases of the timing signals, that is, a horizontal driving signal used to horizontally drive ~~[[said]]~~ the imaging device and a reset signal used to reset ~~[[said]]~~ the imaging device so that ~~[[said]]~~ the imaging device will output a signal according to the timing of signal processing performed by ~~[[said]]~~ the video processing unit.

17. (Currently Amended) An endoscopic imaging system according to claim 1, wherein ~~[[said]]~~ the timing signal generation circuit and ~~[[said]]~~ the phase adjustment circuit are interposed between one end of ~~[[said]]~~ the signal transmission line which is linked to ~~[[said]]~~ the imaging device, and the other end thereof which is linked to ~~[[said]]~~ the video processing unit.

18. (Currently Amended) An endoscopic imaging system comprising:
an optical endoscope having an elongated insertion unit, the elongated insertion unit having an illumination optical system for illuminating an object, an objective optical system for introducing an optical image of the illuminated object, and a propagation optical system for propagating the optical image;

an imaging apparatus mounted on ~~[[said]]~~ the optical endoscope and having an imaging device for picking up the optical image of the object propagated by ~~[[said]]~~ the propagation optical system and outputting a signal;

a video processing unit to which ~~[[said]]~~ the imaging apparatus is ~~removably detachably~~ connected and which processes the signal to produce a standard video signal;

a timing signal generation circuit, incorporated in ~~[[said]]~~ the imaging apparatus, for generating timing signals used to drive ~~[[said]]~~ the imaging device; and

a phase adjustment circuit for permitting an operator to manually adjust ~~adjusting~~ the phases of the timing signals so as to compensate a signal delay occurring over a signal transmission line to which ~~[[said]]~~ the imaging device is linked and over which a signal is transmitted.

19. (Currently Amended) An endoscopic imaging system according to claim 18, wherein [[said]] the imaging apparatus has a TV camera head with a built-in imaging device, a cable extended from [[said]] the TV camera head and containing [[said]] the signal transmission line linked to [[said]] the imaging device, and a connector unit attached to the end of [[said]] the cable and removably coupled to [[said]] the video processing unit so that it can be uncoupled freely.

20. (Currently Amended) An endoscopic imaging system according to claim 19, wherein [[said]] the connector unit has [[said]] the timing signal generation circuit and [[said]] the phase adjustment circuit.

21. (Currently Amended) An endoscopic imaging system according to claim 19, wherein [[said]] the camera head has [[said]] the timing signal generation circuit and [[said]] the phase adjustment circuit.

22. (Currently Amended) An endoscopic imaging system comprising:
an electronic endoscope having an elongated insertion unit, the elongated insertion unit having an illumination optical system for illuminating an object, an objective optical system for introducing an optical image of the illuminated object, and an imaging device located at the position of the image plane of [[said]] the objective optical system for picking up the optical image and outputting a signal;

a video processing unit to which [[said]] the electronic endoscope is ~~removably~~ detachably connected and which processes the signal to produce a standard video signal;

a display for displaying images of [[said]] the object according to the standard video signal;

a timing signal generation circuit, incorporated in [[said]] the electronic endoscope, for generating timing signals used to drive [[said]] the imaging device; and

a phase adjustment circuit for permitting an operator to manually adjust the phases of the timing signals so as to compensate a signal delay occurring over a signal transmission line to which [[said]] the imaging device is linked and over which a signal is transmitted.

23. (Currently Amended) An endoscopic imaging system according to claim 22, wherein [[said]] the electronic endoscope has an operation unit, which is held by an operator, formed at the rear end of [[said]] the insertion unit, and has [[said]] the timing signal generation circuit and [[said]] the phase adjustment circuit incorporated in [[said]] the operation unit.

24. (Currently Amended) An endoscopic imaging system according to claim 22, wherein [[said]] the electronic endoscope has a light source connector unit which is removably coupled to a light source apparatus for generating illumination light, and has [[said]] the timing signal generation circuit and [[said]] the phase adjustment circuit incorporated in [[said]] the light source connector unit.

25. (Currently Amended) An endoscopic imaging system according to claim 22, wherein [[said]] the electronic endoscope has a signal connector unit which is removably coupled to [[said]] the video processing unit, and has [[said]] the timing signal generation circuit and [[said]] the phase adjustment circuit incorporated in [[said]] the signal connector unit.

26. (Currently Amended) An endoscope system comprising:

- first and second endoscopes each having an elongated insertion unit, each elongated insertion unit having an illumination optical system for illuminating an object and an objective optical system for introducing an optical image of the illuminated object;
- first and second imaging apparatuses having first and second imaging devices for picking up optical images produced by [[said]] the first and second endoscopes, respectively, and outputting first and second signals, respectively;
- a video processing unit to which [[said]] the first and second imaging apparatuses are **removably detachably** connected and which processes the first and second signals to produce a standard video signal;
- a display means for displaying images of the object according to the standard video signal;
- first and second timing signal generation circuits, respectively incorporated in [[said]] the first and second imaging apparatuses, for generating timing signals used to drive [[said]] the

imaging devices; and first and second phase adjustment circuits for permitting an operator to manually adjust the phases of the timing signals so as to compensate for signal delays occurring over first and second signal transmission lines to which ~~the~~ first and second imaging devices are linked and over which a signal is transmitted.

27. (Currently Amended) An endoscope system according to claim 26, wherein ~~the~~ first and second imaging apparatuses have ~~the~~ first and second signal transmission lines of mutually different lengths extended therefrom.

28. (Currently Amended) An endoscopic imaging system according to claim 26, wherein ~~the~~ first and second imaging apparatuses have ~~the~~ first and second imaging devices that offer mutually different numbers of pixels.

29. (Currently Amended) An endoscopic imaging system according to claim 26, wherein ~~the~~ first and second imaging apparatuses have ~~the~~ first and second timing signal generation circuits and ~~the~~ first and second phase adjustment circuits located at mutually different positions on ~~the~~ first and second signal transmission lines linking ~~the~~ first and second imaging devices and ~~the~~ video processing unit.